

IN THE CLAIMS:

Amend the claims to read as indicated below.

1. (currently amended) A method of simultaneously displaying a two or three dimensional parametric diagnostic perfusion image and an anatomical diagnostic structural image of the region of interest corresponding to the parametric diagnostic perfusion image on an ultrasonic image display, comprising:

acquiring an anatomical flow-structural image of a region of interest of a subject comprising tissue containing blood flow;

acquiring a parametric image of harmonic signal components from a harmonic contrast agent in the region of interest of the subject;

processing harmonic signal components of corresponding locations in a sequence of images to form a parametric image of a perfusion characteristic of the tissue of the region of interest; and

displaying the parametric perfusion image in anatomical registration with the anatomical flow-structural image, wherein the relative opacity of the registered parametric image and anatomical flow-structural image is variable over a range of relative opacities.

2. (canceled)

3. (currently amended) The method of claim 21, wherein acquiring a parametric image comprises acquiring a parametric image of the blood flow perfusion of the tissue in the region of the body.

4. (original) The method of claim 3, further comprising directing a flow of contrast agent to the region of interest of the subject.

5. (currently amended) The method of claim 1, further comprising varying the relative opacity of the registered parametric image and anatomical flow-structural image in a continuous manner.

6. (currently amended) The method of claim 1, further comprising varying the relative opacity of the registered parametric image and anatomical structuralflow image in a stepwise manner.

7. (original) The method of claim 5, wherein varying the relative opacity further comprises varying the opacity within a range extending from an opaque anatomical image and a transparent parametric image; to an opaque anatomical image overlaid with an opaque parametric image; to a transparent anatomical image and an opaque parametric image.

8. (original) The method of claim 7, wherein varying the opacity within a range further comprises varying the opacity within a range which includes an opacity setting in which a translucent parametric image is shown in registration with a substantially opaque anatomical image.

9. (original) The method of claim 6, wherein varying the relative opacity further comprises varying the opacity within a range extending from an opaque anatomical image and a transparent parametric image; to an opaque anatomical image overlaid with an opaque parametric image; to a transparent anatomical image and an opaque parametric image.

10. (currently amended) A diagnostic imaging system for displaying a two or three dimensional parametric perfusion image in anatomical registration with an-a two or three dimensional anatomical flow-structural image of a region of interest of a subject comprising:

an image processor which produces source of diagnostic flowanatomical structural images of a region of interest of a subject comprising tissue containing blood flow;

a contrast signal processor which produces harmonic signals received from a harmonic contrast agent in the region of interest;

a parametric perfusion image processor responsive to harmonic signals from corresponding locations in a sequence of images which produces a source of parametric perfusion images of the tissue of the region of interest of the subject;

a display coupled to the source of diagnostic flowanatomical structural images and the source of parametric perfusion images processor which displays an diagnostic flowanatomical structural image and a corresponding parametric perfusion image of the same region in anatomical registration;

a display processor coupled to the display which acts to set the relative opacity of the registered diagnostic flowanatomical structural image and parametric perfusion image; and

a user control, coupled to the display processor, by which a user can set the relative opacity of the registered diagnostic flowanatomical structural image and parametric perfusion image.

11. (currently amended) The diagnostic imaging system of Claim 10, wherein the source of parametric perfusion images comprises a source of at least one parametric image of a characteristic of the blood flow perfusion in the region of interest.

12. (canceled)

13. (currently amended) The diagnostic imaging system of Claim 10, wherein the display processor further comprises an opacity processor which acts to set the relative opacity of the registered ~~diagnostic anatomical~~ image and parametric ~~perfusion~~ image within a range varying from an opaque ~~diagnostic anatomical~~ image and a transparent parametric ~~perfusion~~ image; to an opaque ~~anatomical~~~~diagnostic~~ image overlaid with an opaque parametric ~~perfusion~~ image; to a transparent ~~anatomical~~~~diagnostic~~ image and an opaque parametric ~~perfusion~~ image.

14. (currently amended) The diagnostic imaging system of claim 10 wherein the user control comprises a user control, coupled to the display processor, by which a user can set the relative opacity of the registered ~~anatomical~~~~diagnostic~~ image and ~~parametric~~perfusion images within a continuous range of relative opacity settings.

15. (currently amended) The diagnostic imaging system of claim 10 wherein the user control comprises a user control, coupled to the display processor, by which a user can set the relative opacity of the registered ~~anatomical~~~~diagnostic~~ image and ~~parametric~~perfusion images to one of a discrete number of relative opacity settings.

16. (currently amended) The diagnostic imaging system of claim 10 wherein the user control comprises a user control, coupled to the display processor, by which a user can set the relative opacity of the registered ~~anatomical~~~~diagnostic~~ image and ~~parametric~~perfusion images to a setting in which the display displays a translucent parametric ~~perfusion~~ image in registration with a substantially opaque ~~anatomical~~~~diagnostic~~ image.

17. (currently amended) The diagnostic imaging system of claim 10 wherein the display further comprises a display which displays in real time a ~~anatomical~~~~diagnostic~~ image sequence and a corresponding parametric ~~perfusion~~ image sequence in anatomical registration.

18. (currently amended) The diagnostic imaging system of claim 10 wherein the user control comprises a user control, coupled to the display processor, by which a user can set the relative opacity of the registered anatomical~~diagnostic~~ image and parametric perfusion image to a setting in which the display displays a translucent anatomical~~diagnostic~~ image in registration with a substantially opaque parametric perfusion image.

19. (currently amended) The diagnostic imaging system of claim 10 wherein the user control further comprises a plurality of separate user controls by which a user can set the opacity of the parametric perfusion image and the opacity of the registered anatomical~~diagnostic~~ image._